

REMARKS

The above amendatory action is taken to correct an inadvertent translation error in the application as filed. Specifically, in claim 7 as originally filed (as in claim 7 as amended herein), the term "hydrophilic" should be "hydrophobic".

The correction of the error in claim 7 does not constitute "new matter" because both the error and the correction would have been clear to one of skill in the art from the specification as filed. See MPEP 2163.07(II) ("An amendment to correct an obvious error does not constitute new matter where one skilled in the art would not only recognize the existence of error in the specification, but also the appropriate correction."). Thus, it is indicated in the specification as filed that two types of electrodes may be used as the air electrode in the alcohol-air fuel cell with a liquid alkaline electrolyte.

The first type of electrode consists of an active layer facing the electrolyte and a hydrophobic microporous hydrophilic barrier layer facing the air. This type of electrode operates in the case of an increase of pressure of the electrolyte over the pressure of air. The hydrophobic microporous layer keeps the electrolyte in the electrolyte chamber, preventing its penetration into the air side of the electrode. At the same time this layer does not create difficulties for the diffusion of air oxygen into the reaction zone (in the active layer of the electrode), since its pore space is filled with air.

The second type of air electrode comprises an active layer facing the air

chamber and a gas barrier microporous hydrophilic layer facing the electrolyte chamber. This type of electrode operates in the case of an increase of air pressure over the pressure of the electrolyte. The gas barrier layer is moistened with a liquid electrolyte and prevents the ingress of air into the electrolyte chamber. At the same time this layer does not create difficulties for the flow of ion current, since its pore space is filled with electrolyte.

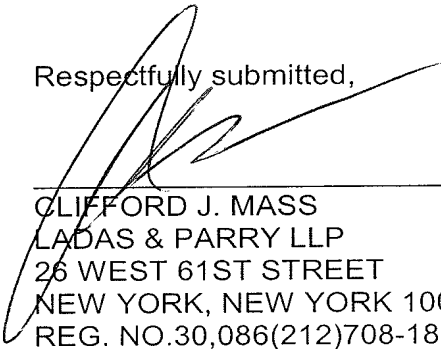
It was erroneously indicated in the international patent application that the microporous hydrophilic layer faces the air chamber. In this case the diffusion of air oxygen to the active layer would be extremely difficult and the electrode would become virtually incapable of operating. This circumstance would have been obvious to anyone who is skilled in the art and involved in the development of air electrodes for fuel elements with liquid alkaline electrolyte. Both of the types of air electrodes described above were widely known and it would be clear to one skilled in the art that an error has been made in the description of the application.

One of skill in the art would know that, in order to correct this error, it is only necessary to turn the electrode about without changing anything in the construction thereof.

The correct wording is also supported by the specification and abstract of the Russian priority application, RU 2002130656, which describes in one embodiment that a two-layer gas-diffusion electrode with a **hydrophobic** barrier layer facing toward the air chamber and with an active layer facing toward the electrolyte chamber is used as a cathode.

Since the present application was filed after 21 September 2004, and a claim for priority of the Russian priority application was present in this application as of the filing date, Applicants are entitled to amend the present application to incorporate the inadvertently omitted portion of the priority application (i.e., the portion of the priority application which refers to the **hydrophobic** barrier layer). See MPEP 201.17. A copy of the claims of the priority application in the original Russian is attached with markings to show the difference in spelling between the word "hydrophilic" ("гидрофильным") as used in claims 6 and the word "hydrophobic" ("гидрофобным") as used in claims 7.

Respectfully submitted,



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